

**Before the
Federal Energy Regulatory Commission
Washington, D.C. 20426**

In the Matter of)	
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Reliability Standards for Geomagnetic Disturbances)	Docket No. RM12-22-000
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To the Commission:

Comments of Nickolaus E. Leggett, Analyst and Inventor

The following are my comments on the Notice of Proposed Rulemaking (NPRM) to direct the North American Electric Reliability Corporation (NERC) to submit reliability standards addressing the impact of geomagnetic disturbances (GMD) on the operation of the Bulk-Power System.

The Federal Energy Regulatory Commission (FERC) should be congratulated on this docket directed at this important threat to the electric power system and to the Nation's economy.

I have the following suggestions for the FERC.

1. FERC should cooperate with the Federal Communications Commission (FCC) to make sure that essential communications services are not damaged or disabled by GMD events. These services are needed for the effective operation of the Bulk-Power System.
2. FERC should direct its engineering staff to consider if Direct Current (DC) transmission lines are less vulnerable to GMD events than Alternating Current (AC) power lines are.

3. On a more speculative note, FERC engineers should examine the possibility that useful energy can be extracted from GMD events and applied to practical use.
4. FERC should examine the impact of GMD events on the Power Line Carrier (PLC) systems that are operated in the 9 – 490 kHz radio band.

Thank you for your consideration of these suggestions.

Respectfully submitted,

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December 2, 2012